

UNITED STATES NAVAL OBSERVATORY

CIRCULAR NO. 17

U. S. Naval Observatory, Washington 25, D. C.

May 4, 1950

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS

MARCH 1950

By Lucy T. Day

An explanation of the symbols used is given in Circular No. 15.

U. T.	No.	Δl	φ	p	A	s	U. T.	No.	Δl	φ	p	A	s
		°	°	°					°	°	°		
1.632	10251	-80	+ 5	80	194	1		10252	0	+20	27	24	1
N-3	10249	-68	-23	70	48	2		10248	+23	- 6	23	73	2
	10249	-61	-22	61	145	1		10241	+75	+10	76	291	1
	10250	-67	- 4	67	61	4			(9)	(113)	(-7)	1248	25
	10248	- 3	- 7	3	24	2							
	10248	0	- 7	0	36	5							
	(*)	+10	+21	30	24	2							
	(*)	+23	+24	38	6	3							
	10245	+42	- 9	42	24	1	4.656	10256	-73	-19	74	73	1
	10241	+49	+10	51	291	1	N-3	10257	-71	-32	72	48	2
	10240	+60	+ 5	62	109	1		10257	-70	-28	71	48	1
	(9)	(139)	(-7)		962	23		10255	-57	+12	60	48	2
2.633	10251	-68	+ 4	68	194	1		10255	-55	+15	59	48	1
N-2	10250	-53	- 4	53	24	1		(*)	-53	+ 3	54	12	2
	10249	-48	-23	50	194	1		10254	-44	+ 9	46	48	3
	10248	+ 9	- 7	9	48	3		10251	-42	+ 4	44	36	3
	10248	+12	- 8	12	36	6		10251	-40	+ 4	42	194	1
	10241	+62	+10	64	291	1		10250	-26	- 3	26	97	9
	10240	+74	+ 5	74	109	1		10250	-23	- 3	23	109	6
	(6)	(126)	(-7)		896	14		10250	-19	- 3	19	145	7
3.637	10255	-80	+15	80	48	1		10253	-23	+ 7	27	36	2
N-2	10254	-60	+ 9	63	48	3		10253	-21	+ 7	26	12	9
	10251	-54	+ 4	54	194	1		10253	-20	+ 8	25	48	1
	10253	-38	+ 7	42	73	2		10249	-20	-21	24	145	1
	10250	-38	- 4	38	170	5		10249	-19	-21	22	12	6
	10249	-34	-23	36	194	1		10252	+10	+26	35	48	1
	10249	-32	-23	35	12	3		10252	+15	+28	38	194	5
	10252	- 3	+25	32	48	1		10248	+36	- 6	36	73	2
	10252	0	+27	34	73	4		10247	+84	-14	84	48	1
								(12)	(99)	(-7)		1522	66
							5.678	10258	-72	+17	74	12	1
							N-3	10256	-67	-18	67	6	1

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U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s	
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$			
	10256	-60	-20	60	97	3		10265	+17	+29	40	73	1	
	10257	-58	-31	60	24	1		10260	+9	+11	20	12	2	
	10257	-57	-27	59	36	1		10251	+17	+5	22	97	1	
	10255	-44	+11	47	12	1		10266	+26	+23	40	61	6	
	10254	-31	+9	35	24	5		10250	+32	-5	32	194	12	
	10251	-27	+3	30	12	6		10250	+37	-4	37	364	1	
	10251	-26	+4	29	194	3		10249	+33	-21	35	48	1	
	10250	-12	-3	12	109	11		10252	+69	+28	73	145	1	
	10250	-8	-3	10	194	13		10264	+84	+10	84	97	1	
	10250	-5	-3	6	145	1		(12)	(44)	(-7)		2908	68	
	10253	-11	+7	18	24	2								
	10253	-6	+7	16	48	4		9.633	10262	-58	-19	58	194	1
	10249	-8	-22	18	12	10		N-2	10262	-51	-19	51	339	2
	10249	-7	-21	17	121	1			10262	-44	-18	45	630	1
	10252	+25	+26	41	48	6			10263	-40	+11	43	61	6
	10252	+29	+28	45	194	1			10261	-37	+21	47	194	9
	10252	+31	+27	46	12	1			10261	-30	+21	41	412	6
	10248	+49	-6	49	61	2			10257	-9	-21	17	48	2
	10248	+54	-6	54	48	1			10265	+19	+29	40	145	9
	(11)	(86)	(-7)		1433	75			10265	+26	+29	44	121	8
6.634	10262	-85	-18	85	485	1			10265	+29	+29	45	158	1
N-2	10261	-73	+22	78	12	3			10251	+28	+4	32	97	1
	10261	-70	+20	74	145	1			10266	+37	+23	48	36	2
	10258	-60	+16	64	6	1			10250	+43	-5	43	121	10
	10256	-53	-17	53	24	2			10250	+49	-4	49	388	1
	10256	-48	-20	48	61	1			10249	+45	-21	47	36	1
	10257	-45	-29	47	12	1			10252	+82	+28	86	145	1
	10257	-44	-27	46	24	1			(10)	(34)	(-7)		3125	61
	10260	-21	+10	27	48	2								
	10251	-13	+5	17	194	1		10.664	10268	-80	+11	80	194	1
	10253	+3	+6	13	121	7		N-2	10267	-70	-10	70	48	1
	10249	+3	-21	14	12	1			10262	-47	-19	47	157	2
	10249	+5	-22	16	109	1			10262	-40	-19	41	436	2
	10250	+4	-4	5	242	27			10262	-31	-13	33	582	1
	10250	+8	-3	10	291	1			10263	-25	+11	31	61	1
	10259	+21	-15	22	6	1			10261	-23	+21	37	145	5
	10252	+40	+27	51	194	1			10261	-17	+21	32	558	5
	10248	+68	-7	68	24	3			10265	+33	+30	49	145	10
	(13)	(73)	(-7)		2010	56			10265	+38	+29	41	170	6
7.694	10262	-80	-20	80	388	1			10265	+41	+31	56	194	5
N-2	10262	-71	-19	72	679	1			10251	+41	+4	43	73	1
	10263	-70	+11	72	73	3			10266	+49	+23	57	36	3
	10261	-62	-21	67	97	1			10250	+55	-5	55	24	2
	10261	-57	+20	62	291	1			10250	+63	-5	63	388	1
	10256	-34	-19	35	48	1			(9)	(20)	(-7)		3211	46
	10257	-29	-25	33	48	1								
	10257	-26	-27	32	12	1		11.706	10268	-75	+13	77	48	1
	10260	-8	+10	19	48	4		W-2	10268	-71	+14	73	145	1
	10265	-5	+29	37	97	5			10268	-68	+13	70	73	1
	10265	0	+29	36	73	1			10267	-57	-9	57	48	1
	10251	+1	+5	12	145	1			10262	-33	-19	34	121	8
	10250	+17	-5	17	218	8			10262	-28	-18	31	97	11
	10250	+22	-4	22	388	3			10262	-25	-18	26	315	1
	10249	+19	-21	23	97	1			10262	-17	-17	20	533	1
	10252	+54	+27	62	242	1			10262	-14	-19	18	12	2
	10264	+69	+10	70	194	3			10263	-12	+11	22	97	5
	(12)	(59)	(-7)		3138	37			10261	-7	+21	29	97	15
8.832	10262	-69	-19	70	97	4			10261	-3	+21	28	533	1
W-2	10262	-64	-19	64	388	2			10269	+16	-20	21	24	1
	10262	-56	-18	56	679	1			10265	+47	+30	58	145	8
	10263	-54	+11	57	48	1			10265	+53	+30	63	170	7
	10261	-47	+21	54	145	12			10265	+59	+30	67	194	10
	10261	-40	+20	48	194	1			10251	+55	+4	56	24	6
	10257	-15	-25	23	24	2			10250	+77	-5	77	388	1
	10265	+9	+29	37	145	6			(9)	(6)	(-7)		3064	81
	10265	+15	+29	39	97	13								
								12.651	10271	-80	+13	80	388	1
								W-2	10268	-61	+13	65	48	1

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U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s
		°	°	°					°	°	°		
	10268	-58	+14	62	170	1		10271	-28	+12	33	24	5
	10268	-55	+13	59	73	1		10271	-24	+12	32	582	3
	10267	-43	-9	43	36	1		10268	-6	+15	24	24	5
	10262	-18	-18	21	121	7		10268	-5	+14	22	121	0
	10262	-13	-18	18	291	1		10268	0	+13	20	73	2
	10262	-10	-13	12	24	2		10262	+38	-17	38	48	10
	10262	-4	-17	12	485	1		10262	+41	-18	42	388	3
	10263	+1	+11	18	121	3		10262	+49	-14	49	533	1
	10261	+3	+22	29	61	1		10263	+55	+12	58	12	4
	10261	+7	+21	29	121	4		10261	+61	+23	67	97	2
	10261	+10	+21	30	291	1		10261	+62	+22	68	533	2
	10265	+60	+30	68	194	3		(7) (301) (-7)				2701	42
	10265	+68	+29	73	97	2							
	10265	+71	+29	79	194	1							
	(7) (354) (-7)				2715	31							
13.778	10272	-80	+20	82	145	1	17.667	10272	-28	+20	39	242	2
W-2	10271	-66	+13	68	485	1	N-3	10276	-23	+11	29	24	5
	10268	-47	+13	51	24	1		10271	-17	+13	25	48	5
	10268	-44	+14	48	145	1		10271	-11	+12	22	485	3
	10268	-41	+13	46	97	1		10277	-2	+14	21	36	3
	10267	-29	-9	29	36	1		10277	+2	+13	20	48	5
	10262	-4	-18	12	24	9		10268	+8	+15	24	73	5
	10262	+1	-18	11	364	1		10268	+13	+13	24	48	2
	10262	+10	-17	15	533	1		10262	+43	-18	44	6	1
	10263	+15	+11	24	48	1		10262	+50	-16	50	61	3
	10261	+18	+22	34	24	1		10262	+53	-15	53	291	1
	10261	+20	+21	35	194	5		10262	+61	-16	61	509	1
	10261	+22	+23	37	339	1		10261	+75	+22	78	533	1
	10261	+23	+21	37	24	1		(7) (288) (-7)				2404	37
	10265	+73	+29	80	194	1							
	(8) (339) (-7)				2676	27							
14.629	10272	-67	+20	70	339	3	18.631	10272	-23	+22	38	12	1
N-3	10271	-52	+13	56	630	1	N-3	10272	-14	+20	31	218	1
	10268	-33	+12	37	12	1		10272	-15	+20	31	12	1
	10268	-32	+14	38	145	1		10271	-2	+12	19	24	3
	10268	-28	+13	34	97	1		10271	-1	+12	18	218	3
	10275	-20	-15	22	6	4		10271	+2	+12	19	194	1
	10267	-15	-9	15	24	2		10277	+11	+15	25	61	2
	10262	+12	-15	15	24	8		10277	+15	+13	25	97	5
	10262	+14	-18	17	364	1		10268	+18	+16	29	24	1
	10262	+21	-15	22	558	1		10268	+21	+15	31	61	1
	10263	+27	+12	32	36	1		10268	+26	+14	33	48	1
	10261	+32	+22	43	582	10		10262	+61	-13	61	12	1
	10274	+34	-18	35	73	2		10262	+66	-16	66	339	1
	(9) (328) (-7)				2890	36		10262	+75	-16	75	582	1
								(5) (275) (-7)				1902	23
15.660	10272	-53	+20	59	303	1	19.730	10279	-71	+9	73	145	1
N-2	10271	-39	+13	44	679	1	N-2	10272	0	+20	27	194	1
	10271	-35	+12	40	12	1		10271	+12	+11	22	36	2
	10268	-19	+12	27	12	1		10271	+13	+12	23	291	2
	10268	-17	+15	27	121	3		10271	+17	+12	26	206	1
	10268	-13	+13	24	97	1		10278	+18	+18	31	24	2
	10267	-2	-9	2	24	1		10278	+21	+15	31	12	1
	10262	+20	-20	23	48	4		10277	+26	+15	35	97	3
	10262	+27	-17	30	436	4		10277	+32	+13	38	97	4
	10262	+35	-14	35	582	1		10268	+37	+14	42	61	2
	10261	+39	+22	48	12	1		10262	+80	-17	80	339	6
	10261	+48	+23	56	630	4		(7) (261) (-7)				1502	25
	10263	+41	+11	45	36	1							
	10274	+48	-18	48	24	1	20.631	10282	-68	-18	68	97	2
	10273	+74	-25	74	24	1	N-2	10279	-59	+9	61	194	1
	(9) (314) (-7)				3040	26		10281	-28	-10	28	12	1
								10272	+13	+20	30	194	1
16.657	10272	-48	+21	55	12	3		10271	+25	+11	31	48	2
W-3	10272	-40	+20	48	242	1		10271	+28	+12	34	194	1
	10276	-37	+11	41	12	1		10271	+31	+12	36	194	1
								10278	+30	+17	38	48	1
								10278	+33	+15	40	36	3
								10277	+39	+15	45	48	1
								10277	+44	+11	48	97	3

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U.T.	No.	Δl °	φ °	ρ °	A	s	U.T.	No.	Δl °	φ °	ρ °	A	s
	10280	+59	- 8	59	12	3	27.668	10288	-74	- 3	74	291	1
	(9) (249)	(-7)			1174	20	N-3	10287	-55	+29	65	6	1
21.640	10282	-54	-18	54	218	4		10287	-52	+28	62	206	1
N-2	10279	-46	+ 9	48	170	1		10286	+ 1	+22	29	73	1
	10272	+27	+21	39	194	1		10286	+ 5	+21	29	48	1
	10271	+40	+13	44	145	4		10279	+34	+10	38	97	1
	10271	+43	+12	48	170	3		10285	+47	- 2	48	194	1
	10278	+47	+18	52	24	3		10285	+53	- 4	53	242	1
	10278	+50	+17	55	48	1		10285	+56	- 1	56	12	1
	10277	+53	+15	58	48	3		(5) (156)	(-7)			1169	9
	10277	+59	+17	62	12	1	28.646	10290	-86	+11	86	97	1
	(6) (235)	(-7)			1029	21	N-4	10288	-60	- 2	60	291	2
22.738	10282	-42	-18	43	121	20		10287	-39	+28	52	194	1
W-3	10279	-32	+ 9	35	145	1		10289	-10	+10	20	16	7
	10272	+39	+22	48	12	1		10283	+ 4	-13	7	12	6
	10272	+40	+21	49	145	1		10286	+13	+23	32	73	11
	10271	+53	+13	57	97	5		10286	+18	+22	33	24	4
	10271	+57	+12	60	145	2		10282	+38	-18	39	12	6
	10277	+65	+15	68	12	1		10279	+48	+ 9	51	85	1
	(5) (221)	(-7)			677	31		10285	+61	- 2	61	145	1
23.653	10282	-28	-18	30	73	17		10285	+62	- 3	62	24	7
W-3	10279	-19	+ 9	25	145	1		10285	+66	- 4	66	194	1
	10272	+54	+21	60	145	1		(9) (143)	(-7)			1167	48
	10271	+67	+12	69	73	4	29.788	10293	-75	- 5	75	194	3
	10271	+71	+11	72	145	2	N-3	10293	-68	- 3	68	145	1
	(4) (209)	(-7)			581	25		10292	-71	+30	79	630	1
24.674	10283	-49	-13	49	48	3		10290	-70	+10	72	97	1
N-2	10286	-39	+23	48	36	1		10290	-65	+13	68	97	3
	10286	-38	+21	47	24	2		10288	-45	- 2	46	291	2
	10282	-15	-21	21	36	6		10287	-26	+29	44	170	1
	10282	-14	-18	18	36	5		10289	+ 5	+ 9	17	12	1
	10279	- 6	+ 9	17	145	1		10286	+27	+23	40	61	1
	10285	+ 8	- 2	10	48	2		10286	+30	+22	42	24	1
	10284	+58	- 8	58	24	3		10286	+35	+23	46	12	1
	10272	+67	+21	71	194	1		10279	+62	+10	64	145	1
	(7) (195)	(-7)			591	24		10285	+76	- 2	76	97	1
25.626	10287	-80	+29	82	97	1		10285	+80	- 4	80	194	1
N-4	10283	-35	-13	35	24	1		(9) (128)	(-7)			2169	19
	10286	-26	+23	40	73	1	30.665	10293	-63	- 5	63	48	2
	10286	-24	+21	38	61	10	N-3	10293	-62	- 8	62	97	1
	10282	+ 1	-18	12	48	6		10293	-58	- 5	58	24	1
	10279	+ 8	+ 9	18	145	1		10293	-53	- 5	53	145	1
	10285	+21	- 2	22	73	16		10292	-59	+29	66	630	1
	10285	+24	- 4	24	97	7		10290	-58	+10	60	194	1
	10284	+69	- 8	69	24	4		10290	-53	+13	57	73	1
	10272	+80	+21	82	194	1		10288	-33	- 2	34	218	2
	(8) (183)	(-7)			836	48		10287	-13	+28	38	170	1
26.677	10288	-88	- 2	88	194	1		10286	+37	+23	48	36	2
W-3	10287	-66	+28	72	145	1		10279	+75	+10	76	121	1
	10283	-22	-13	23	6	1		(7) (116)	(-7)			1756	14
	10286	-12	+23	32	97	5	31.636	10293	-50	- 6	50	61	6
	10286	- 9	+21	30	61	7	N-2	10293	-45	- 5	45	24	1
	10282	+13	-17	17	36	8		10293	-41	- 4	41	24	3
	10279	+21	+ 9	27	145	1		10293	-40	- 5	40	73	1
	10285	+34	+ 2	35	145	8		10292	-46	+29	57	630	1
	10285	+38	- 4	38	194	10		10290	-44	+10	47	182	1
	(7) (169)	(-7)			1023	42		10290	-39	+13	42	97	1
								10288	-19	- 2	20	218	2
								10287	0	+28	35	145	1
								10286	+50	+24	58	24	2
								(6) (104)	(-7)			1478	19

Mean for 31 days, $A=1839$, $r=117.7$